

# Future Development of Astrophysics/ Cosmology



Reviews

**Particle Listings** 

**New Experiments** 



### **Reviews**



Consider subject matter for reviews in consultation with Michael Barnett and Don Groom (LBNL)

Big Bang Cosmology, Cosmological Parameters, CMB, Big Bang Nucleosynthesis, Dark Matter

Maintain up-to-date reviews
Cosmological Parameters

Maintaining focus for high energy physics:
BBN -> Li problem as it pertains to non-standard models.

#### **New Reviews:**

Assess appropriateness for new reviews eg. review on gamma-ray astronomy



### **Particle Listings**



Recent overhaul of neutrino section

Extensive reorganization coordinated at LBNL

maintain sections on neutrinos and astrophysical constraints

Relation between dark matter and supersymmetry
Many new direct (and indirect) dark matter searches
Limits on neutralino properties
Competition with accelerator limits

New particle listings pending LHC results

**Axion Searches** 



## **New Experiments**



There is an increasing number of experiments related to astroparticle physics as it pertains to RPP

#### **Dark Matter:**

Susy/Axion Searches - potential impact on particle listings CDMS, Xenon, Lux, Cresst, Zeplin, Coup, .....

### **CMB**

WMAP, Planck, polarization experiments

Gamma-ray backround
Glast

Cosmic-Rays
Auger, Pamela, AMS

Gravitational Waves
LIGO, LISA, BBO, Decigo